IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Letters Patent of:
Nils Lonberg et al.

Patent No.: 7,041,871

Issued: May 9, 2006

For: TRANSGENIC NON-HUMAN ANIMALS FOR
    PRODUCING HETEROLOGOUS
    ANTIBODIES

REQUEST FOR CERTIFICATE OF CORRECTION
PURSUANT TO 37 CFR 1.323 AND PATENT OFFICE MISTAKE (37 CFR 1.322)

Attention: Certificate of Correction Branch
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Upon reviewing the above-identified patent, Patentee noted several errors which should be corrected.   The errors now sought to be corrected are inadvertent typographical error, the correction of which does not involve new matter or require reexamination.

Transmitted herewith is a proposed Certificate of Correction effecting such amendments. Patentee respectfully solicits the granting of the requested Certificate of Correction.

Enclosed is payment in the amount of $100 in accordance with 37 CFR 1.20(a). The Commissioner is authorized to charge any deficiency of up to $300.00 or credit any excess in this fee to Deposit Account No. 04-0100.

Dated: October 4, 2006   Respectfully submitted,

                                           By _____
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UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

ENTER IN PART: /AW/ (04/04/2008)

Page 1 of 9

PATENT NO.	:	7,041,871	specific proposed
APPLICATION NO.	:	09/724,965	corrections not entered
ISSUE DATE	:	May 9, 2006	have been lined through
INVENTOR(S)	:	Nils Lonberg et al.	and initialed by the examiner

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Application:

Page 2, Col. 2 (Other Publications), Line 13, Delete "responce" and insert

-- response --.

Page 3, Col. 1 (Other Publications), Line 33, Delete "Cynomologus" and insert

-- Cynomolgus--.

Page 3, Col. 1 (Other Publications), Line 39, After "μ" delete "ig" and insert

- - Ig - -.

Page 3, Col. 2 (Other Publications), Line 33, Delete "prior" and insert -- prior—.

Page 3, Col. 2 (Other Publications), Line 47, Delete "resonses" and insert —responses—.

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Page 4, Col. 2 (Other Publications), Line 40, Delete "811-820." and insert

-- 811-820 (1993). --.

Column 6, Line 63, Delete "heavy" and insert -- light --.

Column 10, Line 3, Delete "$V_\kappa J$" and insert - - VDJ - -.

Column 11, Line 13, Delete "$\gamma 1^{+/-}/\mu^-$." and insert - - $\gamma 1^-/\mu^+$. - -.

Column 11, Line 45, "Bath" and insert - - Both - -.

Column 11, Line 51, After "top" delete ";" and insert - - (SEQ ID NO: 333); - -.

Column 12, Line 44, "VH51 $\mu 1$" and insert - - VH51p1 - -.

Column 12, Line 51, Delete "$JC+/-$;" and insert - - $JC\kappa+/-$; - -.

Column 13, Line 13, Delete "K-light" and insert -- κ-light --.

Column 13, Line 20, "(O)" and insert - - (Δ) - -.

Column 13, Line 29, "1.5/ml" and insert - - 1.5μ/ml - -.

Column 14, line 12, "19M+gates" and insert - - IgM^+gates - -.

Column 14, line 13, "IgG" and insert - - $IgG\kappa$ - -.

Column 14, line 41 (Approx.) After "parantheses." insert - - Fig. 97 shows human IgM and IgG anti-IL8 serum titers in transgenic mice. Responses of the individual mice to the immunogen were assessed by ELISA, converted to titers (1 = OD > 0.1 at 1:50 dilution of serum; 2 = OD > 0.1 at 1:250 dilution of serum; 3 = OD > 0.1 at 1:1250 dilution of serum; 4 = OD > 0.1 at 1:6250 dilution of serum; and 5 = OD > 0.1 at 1:31250 dilution of serum) and then averaged. Fig. 98 shows the effect of human anti-IL8 mAb on IL8-induced neutrophil chemotaxis and elastase release. - - as new paragraphs.

Column 14, Line 56, After "of" delete "the".

Column 14, Line 67, Delete "transgeic" and insert -- transgenic --.

Column 14, Line 67, Delete "seqment" and insert -- segment --.

Column 15, Line 1, Delete "occurance" and insert -- occurence --.

Column 16, Line 55, Delete "adsoption" and insert -- adsorption --.

Column 17, Line 7, Delete "perferrably" and insert -- preferably --.

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Column 25, Line 31 (Approx.) After "reference" delete "." And insert --).--.

Column 25, Line 38 (Approx.) Delete "hypermutatian," and insert -- hypermutation --.

Column 47, Line 57, "JK" and insert - - Jκ - -.

Column 47, Line 57, "CK" and insert - - Cκ - -.

Column 49, Line 4, "107 M^{-1}," and insert - - 10^7 M^{-1}, - -.

Column 49, Line 5, Delete "108 M^{-1}" and insert - - 10^8 M^{-1} - - .

Column 56, Line 28, Delete "aty" and insert --at--.

Column 57, Line 36, Delete "C$_{11}$O" and insert - - CHO - -.

Column 58, Line 42, Delete "Homeff," and insert - - Horneff, - -.

Column 59, Line 13, Delete "determing" and insert -- determining --.

Column 60, Line 39, Delete "1348^{-1351}" and insert - - 1348-1351 - -.

~~Column 61, Line 58 (Approx.) Delete "CC/κ" and insert -- GC/κ --.~~   /AW/

Column 67, Line 58, (Approx.) Delete "γ" and insert - - λ - -.

Column 68, Line 5, Delete "γ" and insert - - λ - -.

Column 73, Line 16, Delete "Of" and insert - - of - -.

Column 75, Line 34, Delete "Jk" and insert - - Jκ - -.

Column 75, Line 34, Delete "C" and insert -- Cκ, --.

Column 78, Line 17, Delete "poll," and insert - - polI.

Column 78, Line 18, Delete "J$_{11}$," and insert - - J$_{11}$, - -.

Column 79, Line 65 (Approx.) Delete "aat" insert -- att --.

~~Column 85, Line 36, Delete~~

~~"TTTAAAAGTGCTCATCATTGG/AAAACGTTCTTCGGGGC2BBBCTCTCAA~~
~~GCATC TTAC" and insert - -~~

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/AW/ TTTAAAAGTGCTCATCATTGGAAAACGTTC̶T̶C̶G̶G̶G̶G̶G̶A̶A̶A̶A̶C̶T̶C̶T̶C̶A̶G̶ ̶G̶A̶T̶C̶T̶T̶A̶C̶ - -.

Column 87, Line 48, Delete "associated" and insert - - δ-associated - -.

Column 88, Line 20, Delete "DM₂" and insert - - D_{M2} - -.

Column 88, Line 20, Delete "(Zchihara" and insert -- (Ichihara --.

Column 88, Line 23, Delete "D_{xp}" and insert - - D_{xp'₁}, - - .

Column 89, Line 59, (Approx.) Delete "A29.5" and insert - - λ 29.5 - -.

Column 90, Line 44, Delete "pHC₂-" and insert -- pHC2 - -.

Column 91, Line 41, Delete "Kienow" and insert - - Klenow - -.

Column 94, LIne 61 (Approx.) Delete "0-150" and insert --o-150--.

/AW/ C̶o̶l̶u̶m̶n̶ ̶4̶,̶ ̶R̶o̶w̶ ̶1̶1̶ ̶(̶T̶a̶b̶l̶e̶ ̶4̶)̶,̶ ̶L̶i̶n̶e̶ ̶2̶,̶ ̶D̶e̶l̶e̶t̶e̶ ̶"̶A̶T̶G̶C̶T̶C̶A̶C̶C̶T̶G̶T̶C̶T̶T̶C̶A̶G̶"̶ ̶a̶n̶d̶ i̶n̶s̶e̶r̶t̶ ̶-̶-̶A̶T̶G̶G̶T̶C̶A̶G̶C̶T̶G̶T̶C̶T̶T̶C̶A̶G̶-̶-̶ - -.

Column 103, Line 29 (Approx.), Delete "J_κ1" and insert -- Jκl - -.

Column 111, Line 6-7, Delete "C. An IgKappa antisense transgene construct." and insert the same as sub-heading.

Column 111, Line 12 (Approx.) Delete "gtc" and insert -- gta ---.

Column 111, Line 20, Delete "pBCEI" and insert --pBCE1--.

Column 111, Line 21, Delete "pKASI," and insert --pKAS1.--.

Column 111, Line 22, Delete "pKASI," and insert --pKAS1.--.

Column 114, Line 27, After "ctc" delete "aca" and insert --acc--.

Column 114, Line 29, Delete "λMBL3/SP6/T7" and insert - - λEMBL3/SP6/T7 - -.

Column 114, Line 57 (Approx.) Delete "(SEQ ID NO: 84)" and insert - - (SEQ ID NO: 184) - -.

Column 117, Line 54 (Approx.) Delete "ar" and insert -- as --.

Column 118, Line 4 (Approx.) Delete "Sceening" and insert -- Screening --.

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Column 118, Line 37 (Approx.) Delete "3" and insert -- 3' --.

Column 119, Line 11 (Approx.) "Jk1" and insert - - Jκ1 - -.

Column 119, Line 21, "pKCi" and insert - - pKCI - -.

Column 119, Line 39 (Approx.), "KCIe-1399," and insert - - KCIe-1399, - -.

Column 119, Line 58, Delete "integratians" and insert - - integrations - -.

Column 120, Line 5, "K" and insert - - κ - -.

Column 120, Line 8, Delete "insolublized" and insert - - insolubilized - -.

Column 120, Line 65, "JHD++/JKD+++" and insert - - JHD++/JKD++ - -.

Column 121, Line 53 (Approx.), Delete "Souther" and insert - - Southern - -.

Column 121, Line 60, Delete "hman" and insert - - human - -.

Column 122, Line 54, Delete "intergration" and insert - - integration - -.

Column 122, Line 58, Delete "intergration" and insert - - integration - -.

Column 123, Line 7, Delete "s)" and insert - - (s) - -.

Column 123, Line 10, Delete "respone" and insert -- response --.

Column 124, Line 18, Delete "Jγ1Cγ1)." and insert - - Jλ1Cλ1).- -.

Column 125, Line 49, Delete "constan" and insert - - constant - -.

Column 125, Line 49, Delete "and" before "Jн".

Column 125, Line 49, Delete "gene(s);" and insert - - gene(s)); - -.

Column 129, Line 53 (Approx.), Delete "gta" and insert - - gra - -.

Column 130, Line 43 (Approx.) Delete "[" and insert - - μ - -.

Column 130, Line 48 (Approx.), After "PCR" delete "." And insert a space between "PCR" and "fragments".

~~Column 131, Line 24 (Approx.) Delete~~
~~"TGGGGTCAAGGAACCTCAGTCACCGTCTCCTCA~~ ~~and~~

/AW/

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/AW/ Insert - - TGGGGTCAAGGAACCTCAGTCACCGTCCTCAG - - -,.

/AW/ Column 131-132 Line 32 (Approx.) After "(SEQ ID NO: 168)" insert - - the sequence of the unmutated μ gene is:
...ctggtcctcag<u>A</u>GAGTCAGTCCTTCCC<u>A</u>AATGT<u>C</u>TT<u>T</u>CCCCTCGTC...
GluSerGlnSerPheProAsnValPheProLeuVal - - as a new paragraph.

Column 131, Line 35 Delete "Factor" and insert - - Vector - -.

Column 132, Line 6, Delete "p" and insert -- μ - -.

Column 134, Line 21, Delete "4x17 μl" and insert - - 4x17E1 - -.

Column 135, Line 58 (Approx.) Delete "mm," and insert - - nm, - -.

Column 136, Line 27, Delete "γ1" and insert - - γ1 - -.

Column 136, Line 61, Delete "+, γ1+" and insert - - μ⁺, γ1⁺ - -.

Column 137, Line 2, Delete "IgD+," and insert - - IgD⁺, - -.

Column 137, Line 3, Delete ""IgM-phenotype" and insert - - IgM phenotype - - -.

Column 139, Line 30 (Approx.) Delete "JHD⁻/+J_κD⁻," and insert - - JHD⁺/⁺J_κD⁻, - -.

Column 139, Line 57 (Approx.) Delete "V," and insert -- V₁ - -.

Column 140, Line 4, Delete "C2," and insert -- HC2,--.

Column 140, Line 44, Delete "CK" and insert -- Cκ - -.

/AW/ Column 140, Line, 46, "Cκ" and insert -- CCκ - -.

Column 141, Line 8, Delete "255A" and insert - - 2550 - -.

Column 141, Line 9, Delete "y" and insert - - γ - -.

Column 141, Line 10, After "described" delete "[references]".

Column 142, Line 4, Delete "a" and insert - - α - -.

Column 142, Line 56, Delete "K" and insert - - κ - -.

Column 145, Line 16, Delete "IgM" and insert - - IgMκ - -.

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Column 146, Line 62 (Approx.) Below "sequence is:" delete "The heavy chain VDJ junction sequence is:".

/AW/ ~~Column 146, Line 64 (Approx.), Delete "TGT GCG AG (g gcr cc)" and insert - - TGT GCG AG (g gcr cc) - -.~~

/AW/ ~~Column 147, Line 3 (Approx.), Delete "T G D" and insert - - T G C - -.~~

Column 147, Line 6 (Approx.), "vk65.15" and insert - - Vk65.15 - -.

/AW/ ~~Column 147, Line 7 (Approx.), "AT" and insert - - AAT - -.~~

Column 147, Line 31, Delete "30.3" and insert - - 30.0 - -.

Column 148, Line 26, Delete "plasmid" before "β-lactamase".

Column 151, Line 10, "cagcaa" and insert - - cag caa - -.

Column 152, Line 21, After "function." Delete "HCo7." and insert the same as sub-heading.

Column 153, Line 2, After "two" delete "endogenous locus disruptions and hemizygous for the two".

Column 154, Line 39 (Approx.) Delete "α-3')" and insert - - cc-3') - -.

Column 154, Line 40 (Approx.) Delete "α-3')" and insert - - cc-3') - -.

Column 154, Line 41 (Approx.) Delete "α-3')" and insert - - cc-3') - -.

Column 154, Line 42 (Approx.) Delete "α-3')" and insert - - cc-3') - -.

Column 154, Line 46 (Approx.) Delete "α-3')" and insert - - cc-3') - -.

Column 155, Line 11, "Vκ" and insert - - Vk - -.

Column 156, Line 18, "southern blot" and insert - - Southern Blot - -.

Column 156, Line 25, Delete "λAC" and insert - - YAC - -.

Column 156, Line 35 (Approx.) Delete "K" and insert - - κ - -.

Column 156, Line 37, Delete "k" and insert - - κ - -.

Column 156, Line 38, Delete "k" and insert - - κ - -.

Column 156, Line 52 (Approx.) "pCR11" and insert - - pCRII - -.

Column 157, Line 23, Delete "B220+cell" and insert - - B220$^+$ cell - -.

Column 159, Line 13, Delete "2 mg/mil," and insert - - 2 mg/ml, - -.

Column 163, Line 8 (Approx.) Delete "10^5" and insert - - 10^4 - -.

Column 163, Line 9 (Approx.) Delete " $^{1.1}$ ($\pm$1.5) $\times$ 10^4 " and insert
- - 1.1 ($\pm$ 0.41) x 10^5 - - .

Column 163, Line 11 (Approx.) Delete "10^5" and insert - - 50^5 - - .

Column 164, Line 32 (Approx.) Delete "10CS," and insert - - 10C5, - -.

Column 164, Line 35 Delete "JHD/JCKD/HC2/KCoS" and insert
- - JHD/JCKD/HC2/KCo5 - -.

Column 167, Line 38 (Approx.), Delete "Secrment" and insert - - Segment - -.

Column 167, Line 39 (Approx.), Delete "CDR" and insert - - CDR3 - -.

/AW/ ~~Column 167, Line 40 (Approx.), Delete "DITMVRGVPH" and insert~~
~~- - DITMVRGVPH - -.~~

Column 167, Line 40 (Approx.), Delete "VkA27/A11" and insert - - VkA27/A1 - -.

/AW/ ~~Column 167, Line 42 (Approx.), Delete "PANWNWYFVL" and insert~~
~~- - PANWNWYFVL - -.~~

~~Column 167, Line 44 (Approx.), Delete "VINWFDP" and insert - - VVINWFDP - -.~~

/AW/ ~~Column 167, Line 46 (Approx.), Delete "VINWFDP" and insert - - VVINWFDP - -.~~

~~Column 167, Line 48 (Approx.), Delete "DQLGLFDY" and insert~~
~~- - DQLGLFDY. - -.~~

Column 169, Line 12, After "following" delete "2".

Column 169, Line 20 (Approx.) Delete "NO:242)," and insert - - NO:232), - -.

Column 170, Line 3, Delete "0-529" and insert - - o-529 - -.

Column 170, Line 20, (Approx.) Delete "by" and insert - - bp - -.

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Column 171, Line 38, "pCG7-96 (SEQ ID" and insert
- - pCK7-96 (SEQ ID NO:218) - -.

Column 175, Line 53 Delete

/AW/

"GTGACTGGTGAGTACTCAACCAAGTCATTCTGAGAATAGTGTATGCGGCGACCG
AGT" and insert - -
GTGACTGGTGAGTACTCAACCAAGTCATTCTGAGAATAGTGTATGCGGCGACCG
AGT.

Column 189, Line 46, Delete "IL-BRB" and insert - - IL-8RB - -.

Column 189, Line 50, Delete "my/mil" and insert - - my/ml - -.

Column 189, Line 56, Delete "^{125}I]-" and insert - - ^{125}I- - -.

Column 190, Line 12, Delete "Ca++concentrations" and insert
- - Ca^{++}concentrations - -.

Column 190, Line 24, "Ca++flux." and insert - - Ca^{++} flux. - -.

Column 407, Line 41 (Approx.) In Claim 5 delete "Vκsegments" and
insert - - Vκ segments - - .

Column 408, Line 26, In Claim 9, delete "claim 6," and insert - - claim 5, - -.

Column 408, Line 53, In Claim 14, delete "claim 6" and insert - - claim 5, - -.